



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

June 5, 1986

Mr. Philip Gramlich, Manager  
Longshot Mine  
460 Rosetree Lane  
Moab, Utah 84532

Dear Mr. Gramlich:

RE: Review of Second Submittal, Longshot Mine, PRO/019/018, Grand County, Utah

The Division has reviewed the material you gave to Jim Fricke during the on-site visit on May 9, 1985, as well as the material in your letters of May 13 and June 2, 1985. Based on submittals to date the following must be addressed before a permit can be issued.

1 M-3(1)

The operator included the agreement from Mr. John Adams regarding permission to use a portion of the Last Chance Mining Claim. This area must be included in the permit area, i.e., appropriate revision of maps pertaining to the permit area must be submitted.

2 M-3(2)(e)

Per your letter of June 2, 1986 you have committed to mixing of the fine and coarse tailings upon final reclamation.

3 M-5 Reclamation Bond Estimate

The Division bond estimate references the Rental Rate Blue Book, Means Indexes and the Cat Performance Handbook. Therefore, the estimate has been revised:

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Unit Costs

D6-D                    93.75/hr.  
                         13.40/hr. - operating cost  
                         29.85/hr. - operator  
137.00                - cost per hour

Ripper                    8.40/hr.  
(for D6-D)                .70/hr. - operating cost  
                             9.10

TOTAL COST for D6-D with Ripper    \$146.10/hr.

950B Loader            100.00/hr.  
                         17.65/hr. - operating cost  
29.85/hr. - operating cost

TOTAL COST for 950B loader            \$147.50

TRUCK                    17.00/hr.  
4 x 2                    7.75/hr. - operating cost  
20,000 - 25,000  
175 hp                    23.45/hr. - operator  
                             48.95

TRAILER                    17.20/hr.  
25 ton (cap.)            2.05                - operating cost per hour  
drop deck                19.25  
Folding Gooseneck

TRUCK &                \$ 68.20  
TRAILER

REVISION FROM FOREST SERVICE SHEETS

1. Mobilization and Reshaping (Recontouring) Costs:

A.    2 x 68.20 =                    136.40            R/T for D6-D  
      2 x 146.10 =                    292.20

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B.	2 x 68.20 =	136.40	R/T for Loader
	2 x 147.50 =	295.00	
C.	4 x 147.50 =	295.00	Reshaping with Loader
D.	6 x 146.10 =	<u>929.20</u>	Waterbar Installation Reshaping with D6-D
		\$2084.20	

2. Seeding: (Ref. Native Plant Seed Costs)

A. 11 1/2 lbs./ac/ @ \$26.20/A<sup>x</sup>c \$9.60 AC \$ 251.52  
Seed Costs

B. Labor  
Laborers - 22.08/hr.

2 laborers x \$22.08/hr. x 8 hrs./day x 2 days \$ 706.56

C. Transportation  
Truck - \$100/day \$ 100.00

General cleanup (including removal of 2 sheds)  
1 laborer for 4 hours @ \$22.08/hr. \$ 88.32

\$3230.60

10% Cont. 323.06

1986 dollars \$3553.66

Escalated @ 1.62%

1987	3611
1988	3670
1989	3729
1990	3790

- Amount to be posted for permit approval

The bond will need to be updated and escalated annually on the anniversary date of the permit.

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4 M-10(8) Drainage

Per your letter of June 2, 1986, you have committed to reclaiming all disturbed drainages in the permit area to Oil, Gas and Mining specifications, which are:

Slide Slope	2h:1v
Bottom Width	1.0 feet
Channel Slope	6.4 percent
Depth Channel	2.0 feet

M-10(11) Sediment Control

The tailings ponds on site will act as sediment control structures. Per your letter of June 2, 1986, you have committed to Oil, Gas and Mining pond specifications which are:

	<u>Length</u>	<u>Width</u>	<u>Depth</u>
Pond 1	100 feet	75 feet	6 feet
Pond 2	100 feet	75 feet	8 feet
Pond 3	50 feet	50 feet	10 feet

Spillway Design Requirements

Side Slope	3h:1v
Bottom Width	2 feet
Channel Slope	1 1 percent
Exit Slope	2hv:1v
Depth	2 feet
Spillway	1

5 Rule M-10(12) Revegetation Success Standards

At the request of Mr. Gramlich (page 2 of response to deficiency letter) Kathy Mutz estimated the understory vegetation at the mine site to be a maximum of 10 percent cover. This estimate will require revegetation efforts to establish at least 14 percent cover for bond release. If this is acceptable, no response is necessary.

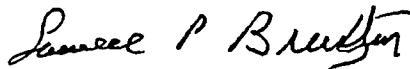
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The State Engineer's Office has requested the Division to forward the enclosed application to construct a dam impounding less than 20 acre-feet. If you have any questions about the content of the form please contact the State Engineer's Office.

Upon receipt of your written comments pursuant to the above noted items and posting of the difference between the Division's bond and Forest Service bond, the Division is prepared to grant a declaration of exemption permit. This permit will be for the interim period while public notice is being posted and final approval for a mining permit by the Board of Oil, Gas and Mining.

Sincerely,



Lowell P. Braxton  
Administrator

djh  
Copy: John Whitehead  
Pam Grubaugh-Littig  
0799R-16

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1/21/86

INSTRUCTIONS FOR  
APPLICATION TO CONSTRUCT  
A DAM IMPOUNDING LESS  
THAN 20 ACRE-FEET

Section 73-5-12 of the Utah Code Annotated 1953, as amended, requires persons proposing to construct reservoirs, which have the capability of holding less than 20 acre-feet, to provide the State Engineer with pertinent data on the proposed dam and reservoir. The accompanying "Application to Construct a Dam Impounding Less Than 20 Acre-Feet" lists the information required.

In reviewing the application, the State Engineer will make a determination as to the proposal's potential to cause significant property damage or loss of human life in the event of a failure. If the potential for loss of human life or significant property damage exists, the State Engineer may require plans and specifications be submitted pursuant to Section 73-5-5 of the Utah Code Annotated 1953 as amended.

If the proposed reservoir and dam will alter a natural stream, the State Engineer may require the applicant to file an "Application to Alter a Natural Stream" pursuant to Section 73-3-29 of the Utah Code Annotated 1953 as amended.

Before approval of the accompanying application can be given, it is mandatory that the water rights for the proposed structure are in order. Reservoirs used to store irrigation water, stock ponds, and ponds used for recreation including aquatic habitat must have a water right to satisfy the uses and/or the increased evaporation. New diversion dams will normally require a new water right or a change in point of diversion of an existing right. Regulating reservoirs must meet the following criteria if they are to use an existing water right:

1. The reservoir must be on an off-stream site.
2. The inflow into the reservoir must not exceed the flow rate of the water right.
3. The reservoir capacity shall not be greater than the water right will supply in forty-eight (48) hours.

It is important that in identifying the water right involved that it be referenced by a number on record in the State Engineer's office. This number may be a Diligence Claim Number, an Underground Water Claim Number, an Approved Application Number, a Certificate Number, a Water Users Claim Number, or a Case Number and Title of Decree in a District Court. If it is proposed to build a regulating reservoir based on ownership of stock in a water company, it will be necessary to attach a letter from the water company involved, stating they have no objection to construction of the regulating reservoir, and referencing the stock owned by the applicant.

It is imperative the accompanying form be complete and accurate. If assistance is needed to complete the form, contact the Utah Division of Water Rights at (801) 533-6071.

APPLICATION TO CONSTRUCT  
A DAM IMPOUNDING LESS  
THAN 20 ACRE-FEET

STATE OF UTAH

Application No. \_\_\_\_\_  
Received \_\_\_\_\_  
Entered \_\_\_\_\_

The following application is submitted, pursuant to Section 73-5-12 of the Utah Code Annotated 1953, to obtain the authority to build a dam which will create a reservoir impounding less than 20 acre-feet

1. APPLICANT INFORMATION

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

2. PURPOSE OF DAM

STOCK POND \_\_\_\_\_ REGULATING RES. \_\_\_\_\_ DIVERSION DAM \_\_\_\_\_  
IRRIGATION \_\_\_\_\_ DEBRIS BASIN \_\_\_\_\_ FLOOD CONTROL \_\_\_\_\_  
SEDIMENTATION \_\_\_\_\_ TAILINGS POND \_\_\_\_\_ RECREATION \_\_\_\_\_  
OTHER ( describe ) \_\_\_\_\_

3. LOCATION OF DAM

QUARTER/QUARTER ( i.e. NESW ) \_\_\_\_\_ SECTION \_\_\_\_\_  
TOWNSHIP \_\_\_\_\_ RANGE \_\_\_\_\_ BASE & MERIDIAN \_\_\_\_\_

4. PROPOSED DAM

DAM HEIGHT ( vertical distance ) \_\_\_\_\_ FEET  
CREST LENGTH ( length of top of dam ) \_\_\_\_\_ FEET  
CREST WIDTH ( width of top of dam ) \_\_\_\_\_ FEET  
UPSTREAM SLOPE \_\_\_\_\_ VERTICAL ON \_\_\_\_\_ HORIZONTAL  
DOWNSTREAM SLOPE \_\_\_\_\_ VERTICAL ON \_\_\_\_\_ HORIZONTAL  
WATER SURFACE AREA AT SPILLWAY CREST \_\_\_\_\_ ACRES  
RESERVOIR CAPACITY AT SPILLWAY CREST \_\_\_\_\_ AC.FT.  
TYPE OF DAM ( i.e. earthfill, concrete, etc., ) \_\_\_\_\_

5. PROPOSED OUTLET

INSIDE DIAMETER \_\_\_\_\_ INCHES LENGTH \_\_\_\_\_ FEET  
TYPE OF PIPE ( i.e. concrete, steel, etc., ) \_\_\_\_\_  
TYPE OF GATE OR VALVE \_\_\_\_\_  
LOCATION OF GATE ( ..upstream, downstream, center, etc., ) \_\_\_\_\_

(OVER)

6. PROPOSED SPILLWAY

CREST LENGTH ( width of bottom of spillway ) \_\_\_\_\_ FEET  
DEPTH ( from bottom of spillway to top of dam ) \_\_\_\_\_ FEET  
TYPE ( i.e. earth channel, pipe, etc., ) \_\_\_\_\_  
CONTROL ( i.e. gates, flashboards, etc., ) \_\_\_\_\_

7. WATER RIGHTS

DESCRIBE ( See Instructions ) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. COMMENTS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. PLANS

Attach any plans sketches or diagrams which will clarify the information given on this application.

\_\_\_\_\_  
The undersigned acknowledge they have read the instructions included with this application, and are aware no construction is to begin until this application has been approved by the Utah State Engineer.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Water Rights in Order By \_\_\_\_\_ Date \_\_\_\_\_  
Area Engineer's Hazard Rating \_\_\_\_\_  
Reviewed by Dam Safety By \_\_\_\_\_ Date \_\_\_\_\_  
Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Date of Approval

\_\_\_\_\_  
Robert L. Morgan, P.E.  
State Engineer